

**REMARKS**

**I. STATUS OF THE APPLICATION**

Claims 1-33 were originally filed in the present case. Claims 34-44 were added in a Preliminary Amendment mailed May 14, 2004. In an Amendment accompanying the Response to Office Action mailed May 17, 2005, the Applicants cancelled claims 1-44, and added claims 45-83. In an Amendment and Response to the Final Office Action of October 13, 2006 the Applicants amended claims 45 – 49, 74 and 75.

Claims 48, 49, 55-72, and 81-83 have been withdrawn from consideration by the Examiner in the Final Office Action of October 13, 2006. In the Amendment and Response to the Office Action of March 30, 2007 claim 75 was amended. In the present Amendment and Response to Office Action of July 17, 2007, claims 45, 46, 73, 75, are amended, and claims 84-87 are newly added. The Applicants submit that the amended claims add no new subject matter. Support for the amended claims can be found throughout the Specification and drawings at, for example, page 71, lines 8-11. The Applicants submit that the new claims add no new subject matter. Support for the newly added claims may be found throughout the Specification at, for example, page 10, lines 3-12.

The Applicants note that all amendments of claims are made without acquiescing to any of the Examiner's arguments or rejections, and solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent Business Goals (PBG),<sup>1</sup> and without waiving the right to prosecute the amended claims (or similar claims) in the future.

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<sup>1</sup> 65 Fed. Reg. 54603 (Sept. 8, 2000).

## **II. REJECTIONS**

In the Final Office Action of July 17, 2007 there are 4 rejections;

1. Claims 45-47, 50, 51, 53 and 73 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Heidmann *et al.* (US Patent 4,671,165) (hereinafter “Heidmann”). (Office Action of July 17, 2007, page 4.)
2. Claims 45 and 75-80 are rejected under 35 USC 103(a) as allegedly being unpatentable over Moore (US Patent #4,965,439) (hereinafter “Moore”) in view of Reese (US Design Patent #Des. 306,173) (hereinafter “Reese”).
3. Claims 52 and 54 are rejected under 35 USC 103(a) as allegedly being unpatentable over Heidmann as applied to claim 45, and further in view of Wascher *et al.* (US Patent #5,491,546) (hereinafter “Wascher”).
4. Claim 74 is rejected under 35 USC 103(a) as allegedly being unpatentable over Heidmann as applied to claim 45, and further in view of Cohen (US Patent # 5,375,072) (hereinafter “Cohen”).

For clarity, the rejections are set forth in the order that they are addressed by the Examiner.

### **B. 35 USC §102**

In the Final Office Action of July 17, 2007, claims 45-47, 50, 51, 53 and 73 are rejected as allegedly being anticipated by Heidmann *et al.* (US Patent 4,671,165) (hereinafter “Heidmann”). (Final Office Action of July 17 2007, page 4.)

The Federal Circuit has stated the relevant analysis for anticipation as follows:

"A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference."<sup>2</sup>

The Applicants respectfully submit that the reference cited by the Examiner fails to teach each and every element as set forth in the claims.

In the Final Office Action of July 17, 2007 the Examiner argues:

“Applicants arguments filed 4/19/07 have been fully considered but they are not persuasive. In response to applicant’s contention that Heidmann does not disclose the claimed invention because Heidman does not disclose a visible secondary vertical cross-hair along a visible secondary horizontal cross-hair, this is clearly not the case as shown in the figure below (*i.e.*, the reticle of Heidmann).

Furthermore, the spider line 33 constitutes an additional secondary horizontal cross-hair constituting an output identifying an aiming point for hitting a target.”  
(Final Office Action of July 17, 2007, page 2.)

The Applicants respectfully disagree. However, in order to further the business interests of the Applicants, and while reserving the right to prosecute that original (or similar) claims in the future, the Applicants have amended claim 45 to read “a reticle, comprising: 1) a plurality of simultaneously visible secondary horizontal cross-hairs intersecting at predetermined distances a simultaneously visible primary vertical cross-hair; and 2) a plurality of simultaneously visible secondary vertical cross-hairs intersecting at predetermined distances at least some of said secondary horizontal cross-hairs”, and “an output using an intersection of at least one of said secondary horizontal cross-hairs and at least one of said secondary vertical cross-hairs to identify an aiming point for hitting the target.”

The Applicants assert that Heidmann fails to teach multiple elements of the claims. In comments superimposed on a copy of Heidmann’s reticle in the Final Office Action of July 17, 2007 the Examiner points to “Secondary horizontal cross-hairs”.  
(Final Office Action of July 17, 2007 pages 2 and 5.) Clearly, the cross-hairs that the

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<sup>2</sup> *Verdegaal Bros. V. Union Oil of California*, 2 USPQ2d 1051, 1053 (Fed.Cir. 1987).

Examiner points out do not intersect, or cross, secondary vertical cross-hairs. Similarly, the Examiner's "Secondary vertical cross-hairs" do not intersect secondary horizontal cross-hairs. The lines that the Examiner indicates are not secondary "cross-hairs". The Examiner's secondary lines do not intersect, or cross, other secondary cross-hairs on the Heidmann reticle.

An intersection is "A place where two or more things intersect." (Merriam-Webster Dictionary) Accordingly "intersect" means "to meet and cross at a point". (Merriam-Webster Dictionary) The lines the Examiner denotes merely stop at right angles to one another. The lines the Examiner denotes do not cross one another, and are not "cross-hairs". Nor does the Examiner indicate where the aiming points of the presently claimed invention are to be found in Heidmann. Clearly, the Heidmann reticle does not teach or suggest an intersection of a least one secondary horizontal cross-hair and at least one secondary vertical cross-hairs to identify an aiming point for hitting a target. Nor has the Examiner pointed out where vertical and horizontal cross-hairs connected to form a grid (Claim 53) are to be found in Heidmann.

Heidmann is missing not just one but multiple elements of the claims set forth in the present application. Accordingly, Heidmann does not teach or suggest the ballistics calculator system of the present application.

In view of the above, the Applicants request that this rejection be withdrawn.

**C. 35 USC §103(a)**

A *prima facie* case of obviousness requires the Examiner to cite to a reference which a) discloses all the elements of the claimed invention, b) suggests or motivates one of ordinary skill in the art to combine the claim elements to yield the claimed invention, and c) provides a reasonable expectation of success should the claimed combination be carried out. Failure to establish any one of these three requirements negates a finding of a *prima facie* case and, without more, entitles the Applicants to allowance of the claims in issue. (MPEP)

**1. Moore in View of Reese**

In the Final Office Action of July 17, 2007, claims 45 and 75-80 are rejected under 35 USC 103(a) as allegedly being unpatentable over Moore (US Patent #4,965,439) (hereinafter “Moore”) in view of Reese (US Design Patent #Des. 306,173) (hereinafter “Reese”).

**a. Missing elements in the Examiner’s Combination of Moore plus Reese**

In the Office Action of July 17, 2007 the Examiner notes:

“Although Moore does not expressly disclose the reticle comprising a plurality of simultaneously visible secondary horizontal cross-hairs at predetermined distances along a simultaneously primary visible vertical cross-hair and a plurality of simultaneously visible secondary vertical cross-hairs at predetermined distances along at least some of the simultaneously visible secondary horizontal cross-hairs and an output using the visible secondary horizontal cross-hairs and visible secondary vertical cross-hairs to identify an aiming point for hitting the target. The reticle comprises a simultaneously visible primary vertical and simultaneously visible horizontal cross-hair, Reese does. Reese teaches a reticle having the specified cross-hairs and secondary cross-hairs.” (Office Action of July 17, 2007, page 6.) (Emphasis added.)

The Applicants respectfully disagree. However, in order to further the business interests of the Applicants, and while reserving the right to prosecute that original (or similar) claims in the future, the Applicants have amended claim 45 to read “a reticle, comprising: 1) a plurality of simultaneously visible secondary horizontal cross-hairs intersecting at predetermined distances a simultaneously visible primary vertical cross-hair; and 2) a plurality of simultaneously visible secondary vertical cross-hairs intersecting at predetermined distances at least some of said secondary horizontal cross-hairs”, and “an output using an intersection of at least one of said secondary horizontal cross-hairs and at least one of said secondary vertical cross-hairs to identify an aiming

point for hitting the target.”

Contrary to the Examiner’s arguments, Moore in view of Reese does not teach or suggest the limitation “an output using an intersection of at least one of said secondary horizontal cross-hairs and at least one of said secondary vertical cross-hairs to identify an aiming point for hitting the target.” of claim 45, and claims 75-80. Reese does not teach or suggest an intersection of secondary vertical and secondary horizontal lines. To the contrary, the Reese’s lines merely stop at right angles to one another. The vertical lines to be found at right angles at the end of horizontal lines in the lower quadrants of Reese’s reticle are not cross-hairs. They do not cross secondary horizontal lines or cross-hairs. Nor does Reese teach or suggest secondary horizontal cross hairs that intersect secondary vertical cross-hairs.

Moreover, Reese does not teach or suggest an output. Reese does not teach or suggest identification of an aiming point. Reese does not teach or suggest identification of an aiming point for hitting a target. The Examiner has not indicated, and cannot indicate, where these elements are to be found in Reese. Indeed, Reese is a design patent in the decorative arts. The components of Reese are ornamental and are not dictated by functional considerations. Accordingly, Reese provides no teachings or suggestions for use of its non-functional, ornamental design in the ballistics calculator system of the present application. Thus, Reese cannot remedy the defects in Moore that the Examiner has conceded in the Office Action of July 17, 2007. In the Final Office Action of July 17, 2007 the Examiner fails to rebut, or even address, these facts.

Clearly, Moore in view of Reese is missing not just one but multiple elements of the claims set forth in the present application. Accordingly, Moore in view of Reese does not teach or suggest the ballistics calculator system of the present application.

In view of the above, the Applicants request that this rejection be withdrawn.

**b. The Examiner Provides no Motivation to Combine Moore and Reese**

In the Office Action of July 17, 2007 the Examiner notes:

“It is noted that if a technique has been used to improve one device, and a person

of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond the person's skill and the improvement is not more than the predictable use of prior art elements according to their established relations.” (Final Office Action of July 17, 2007, page 3).

The Applicant's assert that the Examiner's has failed to meet the United States Patent and Trademark Office's burden in providing evidence that the actual application is within the skill of an ordinary artisan as the Examiner argues, or that the improvement is a predictable use of prior art elements according to their established relations. To the contrary, the Examiner has failed to defeat the novelty and non-obviousness of the presently claimed invention in any single reference, or combination of references. Despite a long felt and unmet need to improve ballistics reticles spanning many centuries, no artisan of ordinary, or even extraordinary skill, has the Examiner provided evidence that an ordinary artisan has arrived at the reticles of the presently claimed invention. Nor has the Examiner provided references that render the combination of the reticles of the presently claimed invention with the ballistics calculator of the present application. In the Final Office Action of July 17, 2007 the Examiner has provided no supporting evidence sustaining the Examiner's speculations with regard to what an ordinary artisan would, or would not, have been motivated to do.

Moreover, Moore expressly teaches away from the reticle of Reese. In the Final Office Action of July 17, 2007 the Examiner fails to rebut, or even address, the clarity of these points. For example, Moore's reticle is:

“a sighting reference, or reticle comprising a vertical cross-hair **19** and a horizontal cross-hair (not shown).” (Moore, column 8, lines 5-7.) (Emphasis added.)

And:

“a reticle frame **39**, a horizontal cross-hair **40** and a vertical cross-hair **41**. These are essentially identical to those components found in conventional scopes and are shown in their relative positions along the optical axis **35** of the scope.” (Moore, column 8, lines 66-67.) (Emphasis added.)

Thus, Moore’s reticle expressly comprises a single vertical cross-hair and a single horizontal cross-hair. In turn, Moore provides an explicit reason for this configuration:

“A further disadvantage of the prior art static means is the cluttering of the field of view of the riflescope. The many circles, lines, or sighting planes lead to confusion during critical or stressful aiming situations, as when time for aiming is limited.” (Moore, column 3, lines 27-31.)

Thus, Moore teaches directly away from the Examiner’s combination of Moore plus Reese.

With regard to horizontal cross-hairs 69 and 70 that are apparent in Figures 4(b’) and 4(c’), Moore notes:

“In this instance, the shooter will raise the aim of the firearm until the horizontal cross-hair image **69** is coincident with the phantom zero reference line 70. (The zero reference line **70** is shown for illustration purposes only and is to be understood not to exist in the actual sight picture.” (Moore, column 11, lines 27-29.)

Thus, Moore not only teaches directly away from the Examiner’s combination of Moore plus Reese, but Moore also teaches directly away from the plurality of simultaneously visible horizontal cross-hairs of the present application.

In addition, Moore’s only aiming point is the intersection between the only cross-hairs to be found on Moore’s reticle *i.e.*, the primary vertical cross-hair and the primary horizontal cross hair:



“And, as always, once the microcontroller has activated the correct setting indicator **73**, for indicating the proper setting of the adjustments, the shooter takes dead aim, positioning the cross-hairs’ intersection exactly where he wishes the bullet to impact the target. All guesswork for achieving proper holdover is eliminated.” (Moore, column 12, lines 39-45.)

To the contrary, the aiming point of the ballistics calculator system of embodiments of the present application uses “an output using an intersection of a least one of said secondary horizontal cross-hairs and at least one of said secondary vertical cross-hairs to identify an aiming point for hitting the target.” (Claim 45.) Hence, contrary to the Examiner’s arguments, Moore’s disclosure expressly leads the ordinary artisan away from, not towards, making the Examiner’s combination of Moore plus Reese.

The Applicants respectfully note that the Examiner’s references individually and collectively fail to teach or suggest making the Examiner’s combination. Thus, the Examiner’s references fail to establish *prima facie* obviousness of the claims.

In view of the above, the Applicants respectfully request that this rejection be withdrawn.

**c. There is no Reasonable Expectation of Success in the Examiner’s Combination of Moore and Reese**

In the Final Office Action of July 17, 2007 the Examiner notes:

“Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the reticle with the specific cross-hairs as suggested by Reese with the ballistic calculator as disclosed by Moore.” (Office Action of July 17, 2007, pages 6-7.)

The Applicants respectfully disagree. Reese does not teach or suggest the ballistics calculator system of the presently claimed invention. Accordingly, Reese

provides no instruction, teaching or suggestion to the ordinary artisan how to go about combining the vast combinations of markings of Reese's reticles with Moore to arrive at the ballistics calculator system of the present application. Alone and in combination, Moore and Reese fail to teach, suggest or instruct the artisan of ordinary skill how to go about selecting and operating components of the ballistics calculator system of the present application. Moore is silent. Reese is silent.

In the Final Office Action of July 17, 2007 the Examiner has not advanced any evidence in support of the contention that the ordinary artisan using the apparatus of Moore and the Design Patent of Reese, would have a reasonable expectation of success in arriving at the ballistics calculator system of the present application. To the contrary, in the Final Office Action of July 17, 2007 the Examiner fails to rebut, or even address, the lack of a reasonable expectation of success in the Examiner's combination of Moore and Reese.

Because the Examiner is not able to show that a reasonable expectation of success may be found in Moore plus Reese, the third prong of a *prima facie* case of obviousness is defective, as are prongs one and two.

In view of the above, the Applicants respectfully request that this rejection be withdrawn.

## **2. Heidmann in View of Wascher**

In the Final Office Action of July 17, 2007, claims 52 and 54 are rejected under 35 USC 103(a) as allegedly being unpatentable over Heidmann as applied to claim 45, and further in view of Wascher *et al.* (US Patent #5,491,546) (hereinafter "Wascher").

The Applicants note that dependent claims 52 and 54 are not obvious for at least the same reasons that base claims 45 is not obvious. As discussed above (Section II.B.) the Applicants note that the Examiner's combination of Heidmann and Wascher both individually, and in combination, fail to render claims 52 and 54 obvious. Wascher's description does not remedy the defects of Heidmann. Thus, the Examiner's references fail to establish *prima facie* obviousness of the claims.

In view of the above, the Applicants respectfully request that this rejection be withdrawn.

**3. Heidmann in View of Cohen**

In the Office Action of July 17, 2007, claim 74 is rejected under 35 USC 103(a) as allegedly being unpatentable over Heidmann as applied to claim 45, and further in view of Cohen (US Patent # 5,375,072) (hereinafter “Cohen”).

The Applicants note that dependent claim 74 is not obvious for at least the same reasons that base claims 45 is not obvious. As discussed above (Section II.B.) the Applicants note that the Examiner’s combination of Heirmann and Cohen both individually, and in combination, fail to render claim 74 obvious. Cohen’s description does not remedy the defects of Heidmann. Thus, the Examiner’s references fail to establish *prima facie* obviousness of the claims.

In view of the above, the Applicants respectfully request that this rejection be withdrawn.

### **III. CONCLUSION**

All grounds of rejection of the Final Office Action of July 17, 2007, 2007 have been addressed and reconsideration of the application is respectfully requested. It is respectfully submitted that the Applicant's claims as amended should be passed into allowance. Should the Examiner believe that a telephone interview would aid in the prosecution of this application the Applicants encourage the Examiner to call the undersigned collect at (608) 218-6900.

Dated: October 30, 2007

/David A. Casimir/

David A. Casimir  
Registration No. 42,395  
CASIMIR JONES, S.C.  
440 SCIENCE DRIVE, SUITE 203  
Madison WI 53711  
(608) 218-6900